

## STATEMENT OF BASIS

as required by LAC 33:IX.3109 for LPDES facilities where a fact sheet is not required under LAC 33:IX.3311, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0105554** to discharge to waters of the State of Louisiana as per LAC 33:IX.2311

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

- I.     **THE APPLICANT IS:**   Northlake Environmental Engineering Services, Inc.  
  Monterey/Timbers Sewage Treatment Facility  
  845 Galvez Street  
  Mandeville, LA 70448
  
- II.    **PREPARED BY:**       Ronda Burtch
  
- DATE PREPARED:**   June 26, 2007
  
- III.   **PERMIT ACTION:**    reissue LPDES permit LA0105554, AI 42667; PER20060001  
  
   LPDES application received: August 11, 2006  
  
   LPDES permit issued: March 1, 2002  
   LPDES permit expired: February 28, 2007

### IV.    **FACILITY INFORMATION:**

- A.     The application is for the discharge of treated sanitary wastewater from a privately owned treatment works serving residential homesites in Timbers, Monterey, Marigny Trace, Seven Oaks, Castine Point, Old Mandeville Woods Subdivisions and unincorporated squares of the Town of Mandeville.
  
- B.     The permit application does not indicate the receipt of industrial wastewater.
  
- C.     The facility is located on Caroline Street off Albert Street in Mandeville, St. Tammany Parish.
  
- D.     The treatment facility consists of three (3) extended aeration treatment plants in parallel with one common outfall. Disinfection is by chlorination.
  
- E.     **Outfall 001**

Discharge Location:   Latitude 30° 21' 44" North  
  Longitude 90° 02' 54" West

Description:           treated sanitary wastewater

Expected Flow:        456 homes x 400 gallons/day/home = 0.1824 MGD

Calculations for gallons per day were based upon figures obtained from Chapter 15 of the State of Louisiana Sanitary Code, Department of Health and Hospitals, Office of Public Health.

Type of Flow Measurement which the facility is currently using:

v-Notch Weir with Ultrasonic Flowmeter

**Please note that if the facility grows to a discharge beyond the design capacity of the facility, additional sewage treatment may be required with prior approval of the facility's plans by the**

Northlake Environmental Engineering Services, Inc.  
 Monterey/Timbers Sewage Treatment Facility  
LA0105554; AI 42667; PER20060001  
 Page 2

**Louisiana Department of Health and Hospitals and notification must be submitted to the LDEQ. Also, if the expected flow reaches or exceeds the design capacity of the facility, a permit modification may be required.**

**V. RECEIVING WATERS:**

The discharge is into a parish drainage ditch, thence into Little Bayou Castine, thence into Lake Pontchartrain in segment 040904 of the Lake Pontchartrain Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 040904 of the Lake Pontchartrain Basin are as indicated in the table below<sup>1/</sup>:

Overall Degree of Support for Segment 040904	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Not Supported	Not Supported	Not Supported	Not Supported	Not Supported**	N/A	N/A	N/A

<sup>1/</sup>The designated uses and degree of support for Segment 040904 of the Lake Pontchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

\*\*This use designation applies only to Bayou Cane and not to its tributaries or distributaries.

**VI. ENDANGERED SPECIES:**

The receiving waterbody, Subsegment 040904 of the Lake Ponchartrain Basin, has been identified by the U.S. Fish and Wildlife Service (FWLS) as habitat for the Gulf sturgeon, which is listed federally as a threatened species. However, this type of discharge is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

**VII. HISTORIC SITES:**

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

Northlake Environmental Engineering Services, Inc.  
Monterey/Timbers Sewage Treatment Facility  
LA0105554; AI 42667; PER20060001  
Page 3

#### **VIII. PUBLIC NOTICE:**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Ronda Burtch  
Permits Division  
Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

#### **IX. PROPOSED PERMIT LIMITS:**

Subsegment 040904, Bayou Cane - U.S. Hwy. 190 to Lake Pontchartrain (Scenic) (Estuarine), is listed on LDEQ's Final 2004 303(d) List as impaired for pathogen indicators (TOTAL FECAL COLIFORM), organic enrichment/low DO, turbidity, and copper (EPA – Category 5). To date no TMDLs have been completed for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL. Until completion of TMDLs for the Lake Pontchartrain Basin, those suspected causes for impairment which are not directly attributed to the sanitary wastewater point source category have been eliminated in the formulation of effluent limitations and other requirements of this permit. Additionally, suspected causes of impairment which could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standard were also eliminated.

##### **Pathogen Indicators (Total Fecal Coliform)**

To protect the receiving waterbody against high levels of pathogenic organisms, fecal coliform limitations will remain as previously permitted.

##### **Organic Enrichment/Low DO**

To protect against the potential for oxygen consuming pollutants that could cause instream DO problems and for discharges of organic material at levels exceeding state water quality standards, CBOD<sub>5</sub> and ammonia-nitrogen limitations will remain as previously permitted.

##### **Copper (EPA – Category 5) and Turbidity**

Based on the nature of the facility, the Department believes that there is little potential for the discharges to cause or contribute to the copper and turbidity impairments in this subsegment. Therefore, no limitations for copper and turbidity will be placed in the permit.

Northlake Environmental Engineering Services, Inc.  
 Monterey/Timbers Sewage Treatment Facility  
LA0105554; AI 42667; PER20060001  
 Page 4

### Final Effluent Limits:

#### OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD <sub>5</sub>	15	10 mg/l	15 mg/l	Limits are set in accordance with the St. Tammany Parish Areawide Policy for facilities of this treatment type and size and in accordance with the previous permit.
TSS	23	15 mg/l	23 mg/l	TSS effluent limitations are set in accordance with the St. Tammany Parish Areawide Policy for facilities of this treatment type and size and in accordance with the previous permit.
Ammonia-Nitrogen	8	5 mg/l	10 mg/l	Ammonia-Nitrogen effluent limitations are set in accordance with the St. Tammany Parish Areawide Policy for facilities of this treatment type and size and in accordance with the previous permit.

### Other Effluent Limitations:

#### 1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

#### 2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.).

Northlake Environmental Engineering Services, Inc.  
 Monterey/Timbers Sewage Treatment Facility  
LA0105554; AI 42667; PER20060001  
 Page 5

### 3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

## X. PREVIOUS PERMITS:

**LPDES Permit No. LA0105554:** Issued: March 1, 2002  
 Expired: February 28, 2007

### INTERIM LIMITATIONS

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
CBOD <sub>5</sub>	10 mg/l	15 mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
Ammonia-Nitrogen	Report	Report	2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab

### FINAL LIMITATIONS

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
CBOD <sub>5</sub>	10 mg/l	15 mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
Ammonia-Nitrogen	5 mg/l	10 mg/l	2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab

## XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

### A) Inspections

A review of the files indicates the following inspection was performed during the period beginning June 1, 2005 and ending June 1, 2007 for this facility.

Date: September 21, 2005  
 Inspector: LDEQ  
 Findings and/or Violations:

An inspection performed, due to Hurricane Katrina, revealed the following:

Operating. Power was out for 18 days. Plant and fence damaged from trees. No flooding or overflows.

### B) Compliance and/or Administrative Orders

A review of the files indicates that there are no enforcement actions administered against this facility.

### C) DMR Review

A review of the discharge monitoring reports for the period beginning January 1, 2005 through December 31, 2006 has revealed the following violations:

Northlake Environmental Engineering Services, Inc.  
 Monterey/Timbers Sewage Treatment Facility  
LA0105554; AI 42667; PER20060001  
 Page 6

Month	Parameter	DMR Reported Value	Permit Limit
September 2005	CBOD <sub>5</sub> , Monthly Avg.	11 mg/l	10 mg/l
October 2005	TSS, Monthly Loading	26 lbs/day	19 lbs/day
	Ammonia-Nitrogen, Monthly Loading	21.8 lbs/day	6 lbs/day
	CBOD <sub>5</sub> , Monthly Loading	83 lbs/day	12 lbs/day
November 2005	TSS, Monthly Loading	56 lbs/day	19 lbs/day
	Ammonia-Nitrogen, Monthly Loading	94.2 lbs/day	6 lbs/day
	Ammonia-Nitrogen, Monthly Avg.	9 mg/l	5 mg/l
	Ammonia-Nitrogen, Weekly Avg.	17.3 mg/l	10 mg/l
	CBOD <sub>5</sub> , Monthly Loading	115 lbs/day	12 lbs/day
	CBOD <sub>5</sub> , Monthly Avg.	11 mg/l	10 mg/l
December 2005	CBOD <sub>5</sub> , Weekly Avg.	16 mg/l	15 mg/l
	TSS, Monthly Loading	38 lbs/day	19 lbs/day
	Ammonia-Nitrogen, Monthly Loading	75.3 lbs/day	6 lbs/day
	Ammonia-Nitrogen, Monthly Avg.	6.7 mg/l	5 mg/l
	Ammonia-Nitrogen, Weekly Avg.	49.3 mg/l	10 mg/l
	CBOD <sub>5</sub> , Monthly Loading	67 lbs/day	12 lbs/day

## XII. ADDITIONAL INFORMATION:

Please be aware that the Department will be conducting a TMDL in the Lake Pontchartrain Basin scheduled for completion in 2011. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.1824 MGD.

Effluent loadings are calculated using the following example:

$$\text{CBOD: } 8.34 \text{ lb/gal} \times 0.1824 \text{ MGD} \times 10 \text{ mg/l} = 15 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.10 and 0.50 MGD.

<u>Effluent Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Continuous	Recorder
CBOD <sub>5</sub>	2/month	Grab
Total Suspended Solids	2/month	Grab
Ammonia-Nitrogen	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

## XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

Northlake Environmental Engineering Services, Inc.  
Monterey/Timbers Sewage Treatment Facility  
LA0105554; AI 42667; PER20060001  
Page 7

**XIV    REFERENCES:**

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Northlake Environmental Engineering Services, Inc., Monterey/Timbers Sewage Treatment Facility, August 11, 2006.